

WHAT IS CLAIMED IS:

1. An inhalant medicator comprising:

a medicator body including a holder mounting portion at one axial end and an inhalant port at the other axial end for inhalation of medical powder;

a holder detachably rotatably mounted to the holder mounting portion and holding thereon a blister pack having a plurality of medical powder storage chambers spaced apart from each other in a circumferential direction thereof;

the medicator body having a portion defining an inflow air passage to supply atmosphere toward one of the plurality of medical powder storage chambers of the blister pack held on the holder which is mounted to the holder mounting portion;

the medicator body having a portion defining an outflow air passage to flow out the medical powder stored in the one medical powder storage chamber of the blister pack held on the holder toward the inhalant port; and

a pricking tool attached to the medicator body to prick an inflow hole and an outflow hole in the one medical powder storage chamber of the blister pack, so that the inflow hole is fluidly communicated with the inflow air passageway and the outflow hole is fluidly communicated with the outflow air passageway.

2. The inhalant medicator as claimed in claim 1, wherein the inflow and outflow holes are spaced apart from each other by a predetermined distance between a downstream end of the inflow air passageway and an upstream end of the outflow air passageway.

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3. The inhalant medicator as claimed in claim 2,  
wherein the medicator body comprises upper and lower  
medicator-body portions and a joining portion through  
which the upper and lower medicator-body portions are  
5 formed integral with each other, and the upper and lower  
medicator-body portions define therebetween a holder  
mounting groove which opens to three directions, and the  
holder comprises a disc-shaped holder so that the  
disc-shaped holder is inserted into and removed from  
10 within the holder mounting groove.

4. The inhalant medicator as claimed in claim 3,  
wherein the medicator body has a protruded portion formed  
on the lower medicator-body portion which is a center  
15 of rotation of the holder, and the holder has a plurality  
of recessed fit portions each of which is formed on an  
upside of the holder and is fitted to one of the plurality  
of medical powder storage chambers of the blister pack,  
and the holder has a portion defining a guide groove which  
20 is formed on an underside of the holder to guide the  
protruded portion to the center of rotation of the holder.

5. The inhalant medicator as claimed in claim 4, which  
further comprises a positioning mechanism provided  
25 between the holder mounting portion of the medicator body  
and the holder, for positioning the one medical powder  
storage chamber of the blister pack held on the holder  
at a predetermined pricking position of the pricking  
tool.

6. The inhalant medicator as claimed in claim 5,  
wherein the positioning mechanism comprises a  
spring-loaded ball housed in a bore formed in the  
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medicator body and closed at one end, and a spring operably disposed in the bore so as to bias the ball in a direction that causes a part of a spherical surface of the ball to be protruded through an opening end of the bore into the holder mounting groove.

7. An inhalant medicator comprising:

a medicator body including a holder mounting portion at one axial end and an inhalant port at the other axial end for inhalation of medical powder;

a holder detachably rotatably mounted to the holder mounting portion and holding thereon a blister pack having a plurality of blistered portions spaced apart from each other in a circumferential direction thereof;

the medicator body having a portion defining a pair of inflow air passages to supply atmosphere toward one of the plurality of blistered portions of the blister pack held on the holder which is mounted to the holder mounting portion;

the medicator body having a portion defining a pair of outflow air passages to flow out the medical powder stored in the one blistered portion of the blister pack held on the holder toward the inhalant port;

a pricking tool attached to the medicator body and having a pair of pins to prick upper and lower inflow holes and upper and lower outflow holes in the one blistered portion of the blister pack, so that the upper inflow hole is fluidly communicated with a first one of the inflow air passageways, the lower inflow hole is fluidly communicated with the second inflow air passageway, the upper outflow hole is fluidly communicated with a first one of the outflow air

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passageways, the lower outflow hole is fluidly communicated with the second outflow air passageway;

the upper inflow and outflow holes being spaced apart from each other by a predetermined distance between a downstream end of the first inflow air passageway and an upstream end of the first outflow air passageway; and

the lower inflow and outflow holes being spaced apart from each other by a predetermined distance between a downstream end of the second inflow air passageway and an upstream end of the second outflow air passageway.

8. The inhalant medicator as claimed in claim 7, wherein the medicator body is substantially cylindrical in shape and comprises upper and lower medicator-body portions and a joining portion through which the upper and lower medicator-body portions are formed integral with each other, and the upper and lower medicator-body portions define therebetween a holder mounting groove which opens to leftward and rightward directions and to one axial direction of the medicator body, and the holder comprises a disc-shaped holder so that the disc-shaped holder is inserted into and removed from within the holder mounting groove.

9. The inhalant medicator as claimed in claim 8, wherein the medicator body has a protruded portion formed on the lower medicator-body portion which is a center of rotation of the holder, and the holder has a plurality of recessed fit portions each of which is formed on an upside of the holder and is fitted to one of the plurality of blistered portions of the blister pack, and the holder has a portion defining a guide groove which is formed

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on an underside of the holder to guide the protruded portion to the center of rotation of the holder.

10. The inhalant medicator as claimed in claim 9, which  
5 further comprises a positioning mechanism provided between the holder mounting portion of the medicator body and the holder, for positioning the one blistered portion of the blister pack held on the holder at a predetermined pricking position of the pricking tool.

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11. The inhalant medicator as claimed in claim 10,  
wherein the positioning mechanism comprises a pair of  
spring-loaded balls each of which is housed in one of  
a pair of bores each closed at one end and formed in the  
15 lower medicator-body portion, and a pair of springs each of which is operably disposed in one of the bores so as to bias the balls in a direction that causes a part of a spherical surface of each of the balls to be protruded through an opening end of each of the balls into the holder  
20 mounting groove.

12. The inhalant medicator as claimed in claim 11,  
wherein the holder has a plurality of recessed fit  
portions which are formed on the underside of the holder  
25 for engagement with the spring-loaded balls of the positioning mechanism.

13. The inhalant medicator as claimed in claim 7,  
wherein the blister pack comprises a base panel having  
30 a blistered portion, and a lid panel affixed onto an obverse of the base panel to define a medical powder storage chamber by hermetically covering the blistered portion of the base panel, the blistered portion

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comprising a pair of substantially hemispherical convex portions in which inflow and outflow holes are pricked during a preliminary operation of inhalant medication, and a flow-constriction portion formed between the  
5 substantially hemispherical convex portions to define a flow-constriction orifice passage.

14. The inhalant medicator as claimed in claim 13, which further comprises a flap valve disposed in the flow-  
10 constriction orifice passage.

15. The inhalant medicator as claimed in claim 13, wherein the blistered portion is formed as an elliptical convex portion having the flow-constriction portion  
15 narrowed in a direction perpendicular to a flat surface of the lid panel.

16. The inhalant medicator as claimed in claim 13, wherein the blistered portion is formed as a gourd-shaped  
20 convex portion having a narrow part narrowed at its center in a transverse direction.

17. The inhalant medicator as claimed in claim 7, wherein the blister pack comprises a base panel having  
25 a blistered portion, and a lid panel affixed onto an obverse of the base panel to define a medical powder storage chamber by hermetically covering the blistered portion of the base panel, the blistered portion  
30 comprising a pair of shallow pricked portions in which inflow and outflow holes are pricked during a preliminary operation of inhalant medication, and a medical powder collecting portion deeply recessed between the shallow pricked portions to pre-store medical powder therein.

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18. The inhalant medicator as claimed in claim 7,  
wherein the blister pack comprises a base panel having  
a blistered portion in which inflow and outflow holes  
5 are pricked during a preliminary operation of inhalant  
medication, and a lid panel affixed onto an obverse of  
the base panel to define a medical powder storage chamber  
by hermetically covering the blistered portion of the  
base panel, the blistered portion comprising a sloped  
10 surface which defines a shallow portion at a side of the  
inflow hole and defines a deep portion at a side of the  
outflow hole.

19. The inhalant medicator as claimed in claim 7,  
15 wherein the blister pack comprises a base panel having  
a blistered portion in which inflow and outflow holes  
are pricked during a preliminary operation of inhalant  
medication, and a lid panel affixed onto an obverse of  
the base panel to define a medical powder storage chamber  
20 by hermetically covering the blistered portion of the  
base panel, the blistered portion comprising a sloped  
surface which defines a shallow portion at a side of the  
outflow hole and defines a deep portion at a side of the  
inflow hole.

25 20. An inhalant medicator comprising:  
a medicator body including a holder mounting portion  
at one axial end and an inhalant port at the other axial  
end for inhalation of medical powder;

30 a holder detachably rotatably mounted to the holder  
mounting portion and holding thereon a blister pack  
having a plurality of medical powder storage chambers

spaced apart from each other in a circumferential direction thereof;

the medicator body having a portion defining an inflow air passage to supply atmosphere toward one of the plurality of medical powder storage chambers of the blister pack held on the holder which is mounted to the holder mounting portion;

the medicator body having a portion defining an outflow air passage to flow out the medical powder stored in the one medical powder storage chamber of the blister pack held on the holder toward the inhalant port;

a pricking means attached to the medicator body for pricking an inflow hole and an outflow hole in the one medical powder storage chamber of the blister pack during a preliminary operation of inhalant medication, so that the inflow hole is fluidly communicated with the inflow air passageway and the outflow hole is fluidly communicated with the outflow air passageway; and

the pricking means comprising a pair of parallel pins spaced apart from each other by a predetermined distance smaller than a longitudinal length of each of the medical powder storage chambers of the blister pack; and

the inflow and outflow holes are spaced apart from each other by the predetermined distance to produce turbulent air flow within the one medical powder storage chambers of the blister pack during the inhalant medication in which the medical powder is inhaled.

21. A blister pack for an inhalant medicator, comprising:

a base panel having a blistered portion;

a lid panel affixed onto an obverse of the base panel to define a medical powder storage chamber by

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hermetically covering the blistered portion of the base panel;

the blistered portion comprising:

5 (a) a pair of substantially hemispherical convex portions in which inflow and outflow holes are pricked during a preliminary operation of inhalant medication; and

10 (b) a flow-constriction portion formed between the substantially hemispherical convex portions to define a flow-constriction orifice passage.

22. The blister pack as claimed in claim 21, which further comprises a flap valve disposed in the flow-constriction orifice passage.

15 23. The blister pack as claimed in claim 21, wherein the blistered portion is formed as an elliptical convex portion having the flow-constriction portion narrowed in a direction perpendicular to a flat surface of the  
20 lid panel.

24. The blister pack as claimed in claim 21, wherein the blistered portion is formed as a gourd-shaped convex portion having a narrow part narrowed at its center in  
25 a transverse direction.

25. A blister pack for an inhalant medicator, comprising:

a base panel having a blistered portion;

30 a lid panel affixed onto an obverse of the base panel to define a medical powder storage chamber by hermetically covering the blistered portion of the base panel;

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(a) a pair of shallow pricked portions in which inflow and outflow holes are pricked during a preliminary operation of inhalant medication; and

26. A blister pack for an inhalant medicator,  
10 comprising:

15 a lid panel affixed onto an obverse of the base panel  
to define a medical powder storage chamber by  
hermetically covering the blistered portion of the base  
panel; and

20 a sloped surface which defines a shallow portion  
at a side of the inflow hole and defines a deep portion  
at a side of the outflow hole.

25        a base panel having a blistered portion in which inflow  
and outflow holes are pricked during a preliminary  
operation of inhalant medication;

the blistered portion comprising:

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a sloped surface which defines a shallow portion  
at a side of the outflow hole and defines a deep portion  
at a side of the inflow hole.

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